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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/494,067	01/28/2000	Rama Murty Kalluri	OPTVP009	3003

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EXAMINER

SRIVASTAVA, VIVEK

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/494,067

Applicant(s)

KALLURI ET AL.

Examiner

Vivek Srivastava

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-19 and 21-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-6, 17-19 and 29-31 is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-16, 21-24, 26-28 and 33-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8-16, 21-24, 26-28 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al (5,691,768, cited by Applicant).

In regards to claims 1, 12 and 25, Civanlar teaches a system and method for combining multiple MPEG encoded video streams. In particular, Civanlar teaches receiving a plurality of video streams 403-1, 403-2, etc., noting that the streams MPEG encoded since the streams are MPEG decoder by decoder 402 (see fig 4). Further, Civanlar discloses incrementing the Macroblock Address Increments, herein after, MAI, by accessing, reading, and renumbering the MAI (see col 11 lines 3-15). It should be noted that Civanlar defines the MAI as "the macroblock's position in the video frame relative to the beginning of each slice" and further discloses modifying the value of the MAI (see col 9 lines 1-25). After the display code position is determined and modified, Civanlar discloses combining the each slice of the MPEG encode video streams into a single composite video stream as depicted by a single stream output from slice processor 405 (see fig 4, also see "single output bitstream" in col 3 lines 55-65). Civanlar further discloses that binary '0's are added to the end of the slice's bitstream,

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where needed, to compensate for renumbering the slice's MAI (see col 9 lines 15-25) and thus discloses the number of bits are modified. Civanlar further discloses an interactive decoder 402 (note interactive since decoder can interact bi-directionally with buffer 401) adapted to interleave each slice of each of the MPEG-encoded video streams as modified into a single composite video stream (see Abstract).

Civanlar fails to disclose the claimed an interactive decoder adapted to determine a display position code for a display position of each slice of received MPEG-encoded video streams and to modify the display position code of each slice of each of the received MPEG-encoded video streams as necessary, as this function is performed by the frame buffer 401 (see col 10 lines 1-67). It would have been obvious to one having ordinary skill in the art to modify Civanlar to include the claimed interactive decoder to perform the claimed functions to eliminate the need for a separate frame buffer thus reducing the number of separate components required.

Civanlar fails to disclose the claimed bits modulo 8. The Examiner Takes Official Notice it would have been well known that the last 8 bits of slice start code indicate the vertical position in the macroblock (see Hingorani et al – col 14 lines 10-18). It would have been obvious to one skilled in the art modifying Civanlar to include the claimed bits modulo 8 would have provided a codeword for sufficiently modifying the display position code for each slice.

Regarding claims 2, 15 and 27 Civanlar discloses the display position code is MAI (see col 4 lines 1-7 and col 5 lines 25-42).

As to claims 3, 16 and 28 Civanlar discloses the claimed MPEG-1 and MPEG-2 encoded video streams (see col 2 lines 5-10).

Regarding claims 8, 21 and 33 Civanlar discloses the claimed interleaving each slice of each of the MPEG encoded video streams as modified into a single composite video stream is according to the display position code as modified of each slice of each MPEG-encoded video stream (see col 11 line 90 – col 12 line 24, Abstract).

Claims 9, 22 and 34 recite the same subject matter discussed above and are thus rejected for at least the same reasons provided above. Claims 9, 22 and 34 further recite the limitation “the number of stuffing codes ranging from 0 to 7”.

As discussed above, Civanlar discloses adding stuffing codes. The Examiner takes Official Notice it would have been well known that the last 8 bits (modulo 8) of slice start code indicate the vertical position in the macroblock (see Hingorani et al – col 14 lines 10-18). It would have been obvious to one skilled in the art modifying Civanlar to include the claimed bits modulo 8 (with 8 bits) and the claimed stuffing codes ranging from 0 to 7 would have provided a codeword for sufficiently modifying the display position code for each slice while maintaining alignment (see col 9 lines 16-25).

Claims 10, 11, 12, 14, 23, 24, 26, 35 and 36 are met by that discussed above.

Regarding claim 13, Civanlar discloses a server which meets the claimed ‘broadcast center limitation’ (see col 2 lines 39-43).

Allowable Subject Matter

Claims 4-6, 17-19 and 29-31 are allowed.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308- 5399 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal
Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Vivek Srivastava whose telephone number is (703) 305 - 4038.

The examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Andy Faile, can be reached at (703) 305 - 4380.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

VS

12/18/03



VIVEK SRIVASTAVA
PRIMARY EXAMINER